SEQUENCE LISTING

<110> Hisatoshi SHIDA et al.

<120> HIGHLY SAFE SMALLPOX VACCINE VIRUS AND VACCINIA VIRUS VECTOR

<130> 1254-0315PUS1

<140> US 10/581,495
<141> 2006-06-02

<160> 13

<170> PatentIn Ver. 2.1

<210> 1
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<212> DNA
<213> Vaccinia virus

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Val Tyr Ser Thr Cys Thr Val Pro Thr Met Asn Asn Ala Lys Leu Thr
20 25 30

Ser Thr Glu Thr Ser Phe Asn Asp Lys Gln Lys Val Thr Phe Thr Cys
35 40 45

Asp Gln Gly Tyr His Ser Leu Asp Pro Asn Ala Val Cys Glu Thr Asp
50 55 60

Lys Trp Lys Tyr Glu Asn Pro Cys Lys Lys Met Cys Thr Val Ser Asp
65 70 75 80

Tyr Val Ser Glu Leu Tyr Asp Lys Pro Leu Tyr Glu Val Asn Ser Thr
85 90 95

Met Thr Leu Ser Cys Asn Gly Glu Thr Lys Tyr Phe Arg Cys Glu Glu
100 105 110

Lys Asn Gly Asn Thr Ser Trp Asn Asp Thr Val Thr Cys Pro Asn Ala
115 120 125

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Glu Cys Gln Pro Leu Gln Leu Glu His Gly Ser Cys Gln Pro Val Lys
    130                 135                 140

Glu Lys Tyr Ser Phe Gly Glu Tyr Met Thr Ile Asn Cys Asp Val Gly
145                 150                 155                 160

Tyr Glu Val Ile Gly Ala Ser Tyr Ile Ser Cys Thr Ala Asn Ser Trp
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Asn Val Ile Pro Ser Cys Gln Gln Lys Cys Asp Met Pro Ser Leu Ser
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Asn Gly Leu Ile Ser Gly Ser Thr Phe Ser Ile Gly Gly Val Ile His
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Leu Ser Cys Lys Ser Gly Phe Thr Leu Thr Gly Ser Pro Ser Ser Thr
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Cys Ile Asp Gly Lys Trp Asn Pro Ile Leu Pro Thr Cys Val Arg Ser
225                 230                 235                 240

Asn Glu Lys Phe Asp Pro Val Asp Asp Gly Pro Asp Asp Glu Thr Asp
                245                 250                 255

Leu Ser Lys Leu Ser Lys Asp Val Val Gln Tyr Glu Gln Glu Ile Glu
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Ser Leu Glu Ala Thr Tyr His Ile Ile Ile Val Ala Leu Thr Ile Met
        275                 280                 285

Gly Val Ile Phe Leu Ile Ser Val Ile Val Leu Val Cys Ser Cys Asp
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Lys Asn Asn Asp Gln Tyr Lys Phe His Lys Leu Leu Pro
305                 310                 315
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<210> 3
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<210> 4
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